Definitions of CWA Technology Based Control Levels

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BPT = Best Practicable Control Technology Currently Available

BPT applies to all (new or existing) direct discharges of conventional, toxic, or nonconventional pollutants. The compliance deadline was July 1, 1977

BPT effluent limitations guidelines are generally based on the average of the best existing performance by pants of various sizes, ages, and unit processes within the category of subcategory fro control of familiar (i.e. – conventional) pollutants.

In establishing BPT effluent limitations guidelines, EPA considers the total cost in relation to the effluent reduction benefits, the age of equipment and facilities involved, the processes employed, process changes required, engineering aspects of control technologies, and non-water quality environmental impacts (including energy requirements). The agency considers the category-wide or subcategory-wide cost of applying the technology in relation to the effluent reduction benefits.

BAT = Best Available Technology Economically Achievable

BAT applies to all direct discharges of toxic or nonconventional pollutants. The compliance deadline was March 31, 1989.

BAT effluent limitations guidelines, in general, represent the best existing performance in the category of subcategory. The Act establishes BAT as the principal national means of controlling the direct discharge of toxic and nonconventional pollutants to navigable waters.

In establishing BAT, the agency considers the age of equipment and facilities involved, the processes employed, the engineering aspects of control technologies, process changes, the cost of achieving such effluent reductions, and non-water quality environmental impacts.

BCT = Best Conventional Pollutant Control Technology

BCT applies to all direct discharges of conventional pollutants and replaces BAT for control of those pollutants after July 1, 1977. The compliance deadline was March 31, 1989.

The 1977 Amendments to the Clean Water Act added section 301(b)(2)(E), establishing "best conventional pollutant control technology" (BCT) for the discharge of conventional pollutants for existing industrial point sources. Section 304(a)(4) designated the following as conventional pollutants: BOD, TSS, fecal coliform, pH, and any additional pollutants defined by the Administrator as conventional. The Administrator designated oil and grease a conventional pollutant on July 30, 1979 (44 FR 44501).

BCT is not an additional limitation but replaces BAT for the control of conventional pollutants. BAT remains in effect for toxic and conventional pollutants. In addition to other factors specified in 304(b)(4)(B), the Act requires the BCT effluent limitations guidelines be assessed in light of a two part "cost reasonableness" test. *American Paper Institute vs. EPA*, 660 F.2d 954 (4th Cir. 1981). The first test compares the cost for private industry to reduce its discharge of conventional pollutants with the cost of publicly owned treatment works for similar levels of reduction in their discharge of these pollutants. The second test examines the cost-effectiveness of additional industrial treatment beyond BPT. EPA must find that the limitations are "reasonable" under both tests before establishing them as BCT. In no case may BCT be less stringent than BPT.

All of the above form the basis for EPA's promulgation, by industrial category of subcategory, of effluent limitations guidelines (ELGs).

NSPS = New Source Performance Standards

NSPS applies to all direct discharges of any pollutant, the construction of which commenced after promulgation of ELGs. Compliance required at first day of discharge.

NSPS are based on the performance of the best available demonstrated technology. New plants have the opportunity to install the best and most efficient production processes and wastewater treatment technologies. As a result, NSPS should represent the most stringent numerical values attainable through the application of best available demonstrated control technology for all pollutants (toxic, conventional, and nonconventional).

THE GOAL OF TECNOLOGY BASED CONTROLS IS "ZERO DISCHARGE"

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